

What is claimed is:

- 1 1. A solid-state image pickup device formed of a photoelectric
2 conversion part
3 having a photoelectric conversion region and a logic circuit
4 part on a semiconductor substrate and outputs a potential change
5 caused by the charges generated in said photoelectric
6 conversion region, comprising a light shielding layer covering
7 the logic circuit part, and a light shielding film defining the
8 region of beam incidence on said photoelectric conversion
9 region, where the light shielding film is provided at a height
10 closer to said semiconductor substrate than said light
11 shielding layer.
- 1 2. The solid-state image pickup device as claimed in claim 1,
2 wherein said light
3 shielding film is located at an intermediate position between
4 said light shielding layer and said photoelectric conversion
5 region in the direction of beam incidence.
- 1 3. The solid-state image pickup device as claimed in claim 1,
2 wherein said light
3 shielding film is provided so as to cover said photoelectric
4 conversion part as well as to make the light shielding state
5 continuous in the boundary part between said photoelectric
6 conversion part and said logic circuit part.
- 1 4. The solid-state image pickup device as claimed in claim 3
2 wherein said
3 light shielding film and light shielding layer are connected
4 in such a manner to make the light shielding state continuous
5 in said boundary part.
- 1 5. The solid-state image pickup device as claimed in claim 3,
2 wherein said light shielding film and said light shielding layer

3 have an overlapping part that can be overlapped in the plan view
4 so as to make the light shielding state continuous in said
5 boundary part.

1 6. The solid-state image pickup device as claimed in claim 1,
2 wherein said light shielding film covers said photoelectric
3 conversion part by combining a plurality of layers.

1 7. The solid-state image pickup device as claimed in claim 1,
2 wherein said light
3 shielding film defines the region of beam incidence on said
4 photoelectric conversion region by combining a plurality of
5 layers.

1 8. The solid-state image pickup device as claimed in claim 6,
2 wherein said plurality of
3 light shielding films are provided so as to make the light
4 shielding state continuous in their boundary parts.

1 9. The solid-state image pickup device as claimed in claim 8,
2 wherein each of said
3 plurality of light shielding films has an overlapping part that
4 can be overlapped in the plan view so as to make the light
5 shielding state continuous in their boundary parts.

1 10. The solid-state image pickup device as claimed in claim 6,
2 wherein said plurality of light shielding films possess a
3 portion having a boundary part with said light shielding layer
4 and a portion that defines the region of beam incidence on said
5 photoelectric conversion region provided at a position closer
6 to said semiconductor substrate.

1 11. The solid-state image pickup device as claimed in claim 1,
2 wherein said light shielding layer is formed of a material that
3 has either low light transparency or high light absorbency such
4 that its light shielding property is sufficiently high.

1 12. The solid-state image pickup device as claimed in claim 1,
2 wherein said light shielding film is manufactured in the same
3 process as the manufacturing process of the logic circuit part.